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Knowledge, Abilities, and 'because'-Clauses. A Critical Appraisal of Virtue-Theoretic Analyses of Knowledge.

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Virtue-theoretic or "aretaic" theories analyse knowledge in terms of intellectual abilities, virtues, faculties etc. possessed by the epistemic subject (rather than the other way around).¹ Recent theories of this variety are persuasively advertised as marking a distinct advance in our quest to understanding what knowledge amounts to. In particular, Greco (2010, 2009) and Sosa (2009, 2007) make a compelling case arguing that their preferred aretaic accounts solve a number of "problems for everyone' (...) perennial problems that any theory of knowledge must say something about" (Greco 2010, 71). Virtue-theorists of course are adamant that their accounts' success is rooted in the fact that aretaic analyses draw on intellectual abilities etc.² In other words, proponents of aretaic accounts take it for granted that is the *virtue*-aspect of their virtue-theories that explains why these arguably are successful theories of knowledge.

I will take issue with this presumption. I will argue that in at least one essential dimension, it misidentifies the actual source of success of virtue-theoretic theories of knowledge, and that once we see why that is, we have reason to be rather wary of virtue-theoretic theories. My line of argument is independent of common objections to virtue-theoretic accounts (e.g. Baehr 2011, ch. 3, Cohen 2009, Greco 2010, 80–90). In fact, even if virtue-epistemologists convince us that there is nothing wrong with drawing on

¹ See Greco/Turri 2011 for an overview, DePaul/Zagzebski 2003 for a collection of influential essays and Baehr 2011 for a recent book on the issue.

² I will employ talk of "intellectual abilities" as a shorthand for the rather more cumbersome "intellectual abilities, virtues, faculties and the like of the epistemic subject".

intellectual abilities in the analysantia of their theories, my argument still creates worries as to the viability of the aretaic programme. I will throughout focus on the advanced aretaic theories of knowledge put forth by Greco (2010, 2009) and Sosa (2007, 2009). However, I believe that my argument covers all virtue-theories that are arguably successful at solving the famed problems for everyone.

My argument proceeds in three steps. In a first step, I examine the virtuetheoretic accounts of knowledge put forth by Greco and Sosa (§1), and I trace their capability to solve problems for everyone (§2). I argue that these aretaic accounts comprise characteristic "because"-clauses tying knowledge to specific explanatory requirements, and that these explanatory requirements are of vital importance to their success. Both accounts are capable of dealing with Gettier cases and the like only because they comprise "because"-clauses tying knowledge to specific explanatory requirements.

I a second step, I inquire into what it is about the "because"-clauses we find in virtue-epistemological theories of knowledge that ensures the theories' success (§3). I argue that it is the general form of the "because"-clauses that does the work, rather than some specific aretaic aspect such as the intellectual ability invoked in the explanans. For if we enhance *non*-aretaic accounts of knowledge by adding suitable *non*-aretaic "because"-clauses, we reap essentially the very same benefits Greco and Sosa reap. I conclude that aretaic specifics are incidental to these theories' capacity to solve problems for everyone. Put bluntly, virtues have (almost) nothing to do with why virtue-theoretic accounts are, at least in one essential dimension, arguably successful theories of knowledge. I call this the *virtue predicament*.

In a third step, I first of all argue that virtue-theorists cannot solve the virtue predicament by trading their "because"-clauses for some other condition (\$4–5). However, keeping them is not an option either (\$6). Almost everyone agrees that following Unger in adding a "no-luck-requirement" to our analysis of knowledge is illegitimate. And rightly so, I suspect, for to do so might well be to mistake a general constraint *on* theories of knowledge for a potential ingredient *in* such a theory. Does adding a "because"-clause means making the same mistake? There are reasons to think so. If the answer is *yes*, as I deem likely, virtue-theoretic accounts of knowledge commit a serious methodological fallacy. If the answer is *no*, virtue-theoretic accounts of knowledge will face stiff competition. For our method of enhancing *non*-aretaic accounts by adding suitable non-aretaic "because"-clauses yields theories of knowledge that are legitimate, solve the famed problems

for everyone just as good as aretaic theories, but will in many cases be substantially simpler than those.

1. Virtue-Theoretic Theories of Knowledge Introduced

Greco explains knowledge in terms of intellectual abilities or "person-level excellences" (2010, 10; cf. ibid 42–44). According to him, what marks off cases where *S* knows that *p* from cases where *S* merely has a true belief that *p* is that in cases of the former kind, "*S* believes the truth because *S* believes from intellectual ability" (2010, 10), and this success ensures that "*S* deserves credit for believing the truth" (Greco 2010, 140; cf. Greco 2003b, 111). Someone who knows that *p* thus has accomplished a specific epistemic feat she deserves credit for, and she has done so by exercising certain of her intellectual ability (...), a kind of achievement, as opposed to a merely lucky success" (2010, 12), and sums up his aretaic account thus: "*S* knows *p* if and only if *S*'s believes the truth (with respect to *p*) because *S*'s belief that *p* is produced by intellectual ability" (Greco 2010, 71).³

Greco's proposal translates into an analysis of knowledge combining an *alethic*, a *doxastic*, an *epistemic*, and an *explanatory* condition:⁴

(G) S knows that p if and only if⁵

- (1) *p*
- (2) S believes that p
- (3) S's belief that p is produced by intellectual ability
- (4) S believes the truth (with respect to p) because S's belief is produced by intellectual ability.

There is no need to mull over the humdrum clauses (1) and (2), or the generic requirement (3). But the "because"-clause (4) is in need of elucidation. It could well be read as a causal requirement on par with (3), demanding the fact satisfying (3) to yield a specific consequence. However, Greco is adamant that his "because"-clause (4) states no such requirement. He stresses:

³ Cf. Greco 2010 74, 12. – See also his 2010, 43–44 for a succinct summary of Greco's key ideas.

⁴ Greco (2012, 12) himself offers a tripartite analysis, condensing our (3) and (4) into the clause "S believes the truth because S's belief is produced by intellectual ability" (2010, 12). I submit that spelling out the obvious presupposition (i.e. (3)) renders the analysis more transparent.

⁵ Even though Greco (ibid.) formulates his account as an iff-biconditional, he (2010, 3–4) stresses that the conditions mentioned are not really intended to be sufficient.

The term "because" is here intended to mark a causal *explanation*. The idea is that, in cases of knowledge, the fact that S has a true belief is *explained* by the fact that S believes from ability. (Greco 2010, 71, my italics)

Let us be clear on explanans and explanandum. The fact⁶ to be explained is not why S's belief that p is true, rather than false. Any such explanation would just consist in pointing out that things happen to be such that p. For example, why is S's belief that it is raining true, rather than false? Well, because it is raining. The fact to be explained is why S is "having a true belief rather than a false belief, or no belief at all" (Greco 2010, 3; cf. Greco 2003, 263). We need to explain why S ended up holding the true belief that p, rather than a false belief that q. The fact expected to do the explaining is the fact satisfying (3), the fact that S's belief has been produced by intellectual ability. So, for example, why is S having a true belief, viz. the belief that it is raining, rather than a different, false one, say, the belief that it is not raining? Because an exercise of her intellectual abilities led her to hold the true belief, or so Greco expects us to judge in cases of knowledge.

Greco's analysis of knowledge turns out to comprise an openly explanation-requiring "because"-clause. After all, we may rephrase his (4) thus:

(4G) The fact that *S*'s belief is produced by intellectual ability *explains why S* is having a true belief (rather than a false one).

Very much the same holds true of Sosa's original aretaic analysis of unreflective or "animal knowledge" (Sosa 2007, 24). Sosa maintains that "[a]nimal knowledge is essentially apt belief, as distinguished from the more demanding reflective knowledge" (2007, 24), and he explains apt belief as follows:

Beliefs fall under the AAA structure, as do performances generally. We can distinguish between a belief's accuracy, i.e., its truth; its adroitness, i.e., its manifesting epistemic virtue or competence; and its aptness, i.e., its being true *because* competent. (Sosa 2007, 23; emphasis in the original)

Let me translate this account of animal knowledge as "apt belief, true because competent" (Sosa 2007, 88) into a second explicit aretaic analysis:⁷

(S) S knows_A that p if and only if

⁶ In order to keep things simple, I will follow Greco in assuming that causal as well as explanatory relations hold between facts. If you do not believe in facts, please take this as a mere *facon de parler*, and translate what is claimed into your preferred causal idiom.

⁷ Since Sosa's distinction between animal and reflective knowledge is incidental for our purposes, I will treat (S) throughout as Sosa's account of knowledge.

- (1) *p*
- (2) S believes that p
- (3) *S*'s belief that *p* manifests epistemic virtue
- (4) S's belief is true because it manifests epistemic virtue or competence

Thus read, Sosa's analysis also combines an alethic, a doxastic, an epistemic and an explanatory condition. After all, we may safely rephrase the "because"-clause as:

(4S) The fact that S's belief manifests epistemic virtue *explains* why S is having a true belief (rather than a false one).

In order to have a convenient abbreviation, I will say that S's belief is *elucidatory* just in case it is true that the fact that S's belief is produced by intellectual ability, or the fact that S's belief manifests epistemic virtue, explains why S is having a true belief (rather than a false one).

Greco unequivocally embraces the explanatory requirement (4G). Sosa doesn't. Although he arguably relies on it in his *A Virtue Epistemology* (2007), he refrains from explicitly including a "because"-clause in the official analysis of animal knowledge offered in his *Reflective Knowledge* (2009). For the time being, I will ignore this complication and treat (S) as the analysis to be assessed. I will come back to this complication in §5.

2. Solving Problems for Everyone, or Why Virtue-Theoretic Accounts Are Arguably Successful

Why should we think that aretaic accounts of knowledge are on the right track, at least in principle? Because they are clearly more successful than traditional analyses, or so Sosa and Greco maintain. After all, they solve "problems for everyone' (...) perennial problems that any theory of knowledge must say something about" (Greco 2010, 71). More specifically, Sosa and Greco maintain that aretaic analysis (i) solve puzzles such as the classic Gettier cases, that they (ii) explain why knowledge-ascriptions are sensitive to the context, and that they (iii) allow us to understand what the value of knowledge, as compared to mere true belief, consists in. I won't take issue with these claims. I will rather trace the alleged success of aretaic accounts and inquire into precisely which feature of (G) and (S) allows these ac-

counts to supposedly accomplish these feats. I will confine myself to (i) and (ii), though, and pay no heed to the issue of the value of knowledge.⁸

Greco and Sosa maintain that their aretaic analyses account for puzzle cases like original Gettier cases. They maintain:

(A) The virtue-theoretic analysis smoothly yields the right verdicts in classic bad luck/good luck⁹ Gettier cases.

Recall for example Lehrer/Paxton's *Nogot/Havit-case* (Lehrer/Paxton 1969, 229). Suppose our protagonist, let us call him 'Keith', believes that someone in his class owns a Ford. Keith does so since he believes on excellent evidence that Nogot, who is in the class, owns a Ford. Unbeknownst to Keith, though, Nogot does not own a Ford (bad luck). Yet by pure coincidence, and although Keith does not believe so, Havit, who is also in *S*'s class, owns a Ford (good luck). Keith' belief that someone in his class owns a Ford thus is true as well as justified, but, as almost everyone agrees, not knowledge.

Sosa holds that his aretaic account yields the right verdict in this classic Gettier case, and he justifies this assessment thus:

The reasoning by way of Nogot does of course help explain why the believer has that belief, but it does not in the slightest help explain its *correctness*. (Sosa 2007, 96)

Keith is rightly classed as *not* knowing that someone in his class owns a Ford, since his belief is not elucidatory: the fact that his belief manifests epistemic virtue *does not explain* why he is having a true belief (rather than a different, false one), or so Sosa maintains. After all, an explanatory fact

(...) must help establish a connection between how the believer believes on that matter, and the truth of the matter. But the belief about Nogot helps establish no such connection with the truth of the matter at hand: whether someone here owns a Ford. (Sosa 2007, 96)

This line of reasoning is revealing. Sosa in effect acknowledges that Keith satisfies the alethic, doxastic and epistemic conditions (1) - (3) of (S). Only the explanatory condition is not met. So, if Sosa's theory (S) indeed suc-

⁸ Focusing on the 'problems for everyone', the obstinate problem of the value of knowledge is beyond what I can responsible deal with in this paper. I hence confine myself to one essential dimension in evaluating aretaic accounts of knowledge. – I agree that an aretaic solution to the problem of the value of knowledge could render aretaic theories somewhat attractive. Then again, traditional reliabilists might well have an answer to the value problem, too. See e.g. Goldman/Olson 2009.

⁹ This taxonomy is mine. But see Sosa 2007, 96 Fn. 1 who agrees that that we need to distinguish the likes of classic Gettier cases from the likes of Goldman's barn-case.

cessfully accounts for good luck/bad luck Gettier cases, it does so only because it comprises the "because"-clause (4S) requiring an explanation.

Precisely the same holds true of Greco's account. If (G) accommodates classic Gettier cases, it does so only because it includes a "because"-clause failing in these cases, whereas the alethic, doxastic, and generic condition is met. As Greco explains:

In cases of knowledge, *S* believes the truth because *S* believes from intellectual ability – *S*'s believing the truth is explained by *S*'s believing from ability. But the success of this explanation requires more than that ability is involved. It requires that *S*'s ability has an appropriate level of explanatory salience. Such salience is there by default in normal cases, owing to our interests and purposes as information-sharing beings in need of reliable informants. But default salience is trumped by abnormality in Gettier cases. Specifically, it is trumped by the abnormality manifested in the way that *S* ends up with a true belief. (Greco 2010, 75, cf. Greco 2009, 20)

Greco and Sosa agree that although the fact that Keith exercised intellectual ability *produced* in him a belief that happened to be true, the very same fact that Keith exercised intellectual ability *does not explain why* he has a true belief. Both presuppose that being a cause and being explanatory can come apart. Hence, neither Sosa nor Greco can accept Lewis's proposal that "to explain an event is to provide some information about its causal history" (1986, 217). To the contrary, both are committed to holding that the fact that A explains why B is the case only if A satisfies requirements *beyond* being a cause of B – requirements such as being salient in Greco's case.

Including an explanatory requirement in their accounts allows Sosa and Greco to deal with classic bad luck/good luck Gettier cases. They do not apply this strategy to cases of plain epistemic good luck such a Goldman's *fake barn case* (Goldman 1976, 772f), though. Suppose Henry, uttering "That is a barn", truly believes that the structure he just identified is a barn. Yet unbeknownst to him, he has hit on the only barn in the whole district (good luck); all of the many other structures appearing to be barns are but paper-maché barn-façades. Then Henry does not know that the object he just identified is a barn, or so almost everyone agrees. An explanatory conditions such as (4G) or (4S) appears to be of no use to accommodate such a case, for it seems hard to deny that Henry has a true belief (partly) because he exercised an intellectual ability; after all, he "saw clearly" (Greco 2003, 363). So in dealing with fake barn cases, Greco (2010, 77–79) does not draw on his explanatory requirement. He rather argues that epistemic sub-

jects have their intellectual abilities only relative to an environment and that in fake barn country, Henry simply does not have the ability to tell barns from non-barns. Sosa (2007, 96 Fn. 1) even feels compelled to bite the bullet. He allows that Henry does have animal knowledge, albeit in a weak form Sosa labels "brute animal cognition" (2009e, 141).

Our virtue-theoretic accounts fare better with a third kind of puzzle pertaining to Gettier-style cases. Greco points out that

(B) The virtue-theoretic analysis accounts for differences in verdicts with respect to puzzle cases that are very much alike.

Consider the *garbage chute case* (Sosa 2000, 13; Greco 2003, 361). Ernest drops a trash bag down the garbage chute of his apartment building. Ernest immediately forms the belief that the bag will not be snagged in the chute (but rather fall to the basement garbage room). His grounds for so believing are inductive: it is possible that the bag will be snagged in the chute, but extremely unlikely. As it happens, the bag is not snagged in the chute and his belief is true. We have no trouble crediting Ernest with knowledge. Now compare a standard *lottery case* (Greco 2003, 362). Laura buys a lottery ticket. She immediately forms the belief that her ticket will not win. Her grounds for so believing are inductive: it is possible that her ticket will win, but extremely unlikely. As it happens, the ticket does not win and Laura's belief is true. Here almost everyone agrees that Laura does *not* know that her ticket will not win.

These cases follow the same recipe. What then explains the difference in our verdicts? Greco's answer to this challenge is this:

In cases of knowledge (inductive knowledge included), an adequate explanation concerning *why S* has a true belief (rather than a false belief or no belief) will place salience on S's intellectual abilities. The explanation will be that *S* reasoned soundly (or that she remembered accurately, or that she saw clearly). In the lottery case, however, salience must be placed elsewhere. Specifically, it must be placed on the fact that, as luck would have it, *S* lost the lottery. (Greco 2003, 363)

According to Greco, then, the subjects' belief is elucidatory in the garbagechute case, yet fails to be so in the lottery-case. If (G) successfully avoids classing the garbage chute case and the lottery case alike (and thus avoids violating our verdict on one of them), it does so only because it comprises the "because"-clause (4) requiring an explanation.¹⁰ As far as I tell, Sosa is silent on this matter. Yet if he wishes to avoid classing the two cases alike as well, he in all plausibility will have to likewise maintain that the explanatory condition of his account is met in just one of them.

Let me finally turn to contextualist phenomena. Many epistemologists hold that the truth-conditions of "S knows that p", as uttered by A in context C, vary with context (Lewis 1996, DeRose 2009). Greco thinks that his aretaic analysis can account for this. He maintains:

(C) The virtue-theoretic analysis explains the apparent context-sensitivity of knowledge-ascriptions

Greco produces a straightforward explanation of contextualist phenomena in terms of his aretaic analysis. He argues that

(...) knowledge attributions are sensitive to context because they involve causal explanations, and causal explanations are sensitive to context. Knowledge attributions inherit the context-sensitivity of causal explanations. (Greco 2010, 106)

Again, Greco's line of thought intended to convince us that his aretaic account successfully solves yet another problem for everyone relies on the fact that (G) comprises the "because"-clause (4) requiring an explanation.

3. What does Virtue Contribute to the Success of Virtue-Theoretic Accounts?

We have seen that aretaic accounts of knowledge are not just distinctive in that they invoke intellectual abilities. They also are distinctive in that they add to the common alethic, doxastic and epistemic clauses a "because"clause requiring that the relevant belief be elucidatory. This has been noted before. It is no accident that Kelp sums up central the thesis of "robust virtue epistemology" thus:

One knows that p iff the truth of one's belief that p –alternatively, one's cognitive success–is *because* of the exercise of cognitive ability. (Kelp 2009, 583)

More importantly still, we have also seen that the "because"-clause does real work. We have seen that if the aretaic accounts do successfully account for the assortment of "perennial problems that any theory of knowledge

¹⁰ I suppose that the very same argument could well be applied to barn cases.

must say something about" (Greco 2010, 71) rehearsed above, they effectively do so only because they comprise "because"-clauses requiring specific explanatory accomplishments. In sum, then, we have found that the aretaic accounts offered by Sosa and Greco comprise "because"-clauses" tying knowledge to specific explanatory requirements, and that these explanatory requirements are of key importance to the aretaic accounts' success.

Let us for the time being grant that the aretaic theories we have examined succeed at solving the puzzles rehearsed above. Here now is the crucial question: *What is it about the "because"-clauses we find in these aretaic accounts that ensures the accounts' success?* Is it (a) the fact that these clauses require explanations of the subject having a true belief rather than a false one *in terms of intellectual ability?* Or is it (b) the fact that these clauses require explanations of the subject having a true belief rather than a false one in terms of some factor or other? In other words, is it some *specific aretaic aspect* such as the intellectual ability invoked in the explanans, or is it the *general form* of the "because"-clauses that does the work? I will argue that (b) is the right answer. Here is how I will make that case: I will establish that once we enhance *non*-aretaic accounts of knowledge by adding suitable *non*-aretaic "because"-clauses, we reap essentially the very same benefits Greco and Sosa reap.

The "because"-clauses in (G) and (S) follow a specific pattern. They require that the fact that the subject S is having a true belief rather than a false one be explained by the fact rendering true the respective epistemic condition (3). Now consider a traditional, if rather simple, reliabilist account of knowledge:

(REL) *S* knows that *p* if and only if

- (1) *p*
- (2) *S* believes that p and
- (3) S's belief that p has been produced by a reliable belief-forming mechanism.

Let us enhance REL by adding a "because"-clause likewise requiring that the fact that S is having a true belief rather than a false one be explained by the fact rendering true the epistemic condition (3). Here it is:

(4REL) *S* is having a true belief (rather than a false belief) *because S*'s belief has been produced by a reliable belief-forming mechanism. Or consider the traditional analysis (JTB). (JTB) has it that *S* knows that *p* iff (1) *p*, (2) *S* believes that *p*, and (3) *S*'s belief that *p* is justified. Following the pattern described above, and allowing us some leeway in interpreting (JTB),¹¹ we could well enhance this account by adding:

(4JTB) *S* is having a true belief (rather than a false belief) *because S*'s belief is justified.

Let me dub the enhanced accounts "(REL+)" and "(JTB+)". Now let us see how these enhanced traditional accounts fare compared to aretaic analyses. In order to keep things simple, I will mostly focus on (REL+). I submit that a proponent of (JTB+) could basically argue along the same lines.

To begin with, an advocate of enhanced reliabilism can rely on essentially the line of thought employed by Sosa and Greco in order to argue that

(A*) Enhanced reliabilism smoothly yields the right verdicts in classic bad luck/good luck Gettier cases.

Recall Keith, our protagonist in the Nogot/Havit-case. Greco and Sosa argue that, since the fact that Keith exercised intellectual ability *does not explain why* he has a true belief, Keith fails to meet the explanatory requirements (4S) and (4G), respectively. Sosa's and Greco's aretaic accounts thus successfully refrain from classing Keith as a knower. By the very same token, our advocate of enhanced reliabilism can argue that, since the fact Keith's belief that *p* has been produced by a reliable belief-forming mechanism *does not explain why* he has a true belief, Keith fails to meet the explanatory requirement (4REL). (REL+) thus successfully refrains from classing Keith as a knower. In fact, our advocate of enhanced reliabilism may (but need not) take up Greco's specific diagnosis and contend that "default salience is trumped by abnormality in Gettier cases. Specifically, it is trumped by the abnormality manifested in the way that *S* ends up with a true belief" (Greco 2010, 75).

We find that if aretaic accounts successfully accommodate classic Gettier cases, then enhanced reliabilism does so, too. This should not come as a surprise. After all, it is hard to see how a protagonist in a classic Gettier case can violate the explanatory requirements (4S) and (4G) *without also violating* (4REL), or (4JTB), for that matter. If we enhance *non*-aretaic accounts of knowledge by adding suitable *non*-aretaic "because"-clauses, we reap

¹¹ We have to read the justification-requirement as a genetic condition. See Greco's (2010, ch.2) discussion of the similar distinction between weak and strong deontological theories.

essentially the same benefits Greco and Sosa reap with respect to classic Gettier cases. By consequence, we have every reason to conclude that the aretaic specifics of (4G) and (4S) are incidental to the aretaic accounts' success in dealing with classic Gettier cases. What ensures this success rather is the *general form* of the "because"-clauses shared by the explanatory requirements (4S), (4G), and (4REL), and plausibly even (4JTB).

Taking up the second presumed accomplishment of virtue-theoretic theories, our advocate of enhanced reliabilism can mimic the line of thought employed by Sosa and Greco and argue:

(B*) Enhanced reliabilism accounts for differences in verdicts with respect to puzzle cases that are very much alike.

Greco argues that the explanatory condition on knowledge (4G) fails in the lottery case, yet holds in the garbage chute case. This is why his aretaic account successfully avoids classing the garbage chute case and the lottery case alike, and thereby avoids violating our verdict on one of them. Our advocate of enhanced reliabilism can make basically the same case. She can argue that the explanatory condition (4REL) fails in the lottery case, yet holds in the garbage chute case. This is why her enhanced reliabilist account successfully avoids classing the garbage chute case and the lottery case alike. It thereby avoids violating our verdict on one of them. In fact, our advocate may (but need not) follow Greco's lead and point out that whilst salience in the garbage chute case is on the fact that Ernest's belief has been produced by a reliable belief-forming mechanism, in the lottery case "salience must be placed elsewhere. Specifically, it must be placed on the fact that, as luck would have it, [Laura] lost the lottery" (Greco 2003, 363).

This, again, should not come as a surprise. It is again hard to see how a protagonist in one of the cases can satisfy (or violate) the explanatory requirements (4G) or (4S) without also satisfying (or violating) (4REL), or (4JTB), for that matter. Once more we find that what ensures success of aretaic theories is the general form of the "because"-clauses shared by the explanatory requirements, rather than the aretaic specifics of (4G) and (4S).

Let me finally turn to contextualism. Greco maintains that his aretaic analysis can account for the supposed fact that the truth-conditions of "S knows that p", as uttered by A in context C, vary with the context C. Since knowledge attributions involve causal explanations, and since causal explanations are sensitive to context, attributions of knowledge are so sensitive, too – they "inherit the context-sensitivity of causal explanations" (Greco 2010, 106). Here the advocate of enhanced reliabilism can put forth word for word the same argument and conclude:

(C*) Enhanced reliabilism explains the apparent context-sensitivity of knowledge-ascriptions.

After all, nothing in Greco's defence turns on aspects of the causal explanation required *that are specifically aretaic*. But if the virtue-theoretists' reason to claim that the explanatory clauses (4G) and (4S) hold, fail, or have some other consequence is not even tied to a specific *aretaic* aspect of these clauses, then we have to admit that explanatory requirements (4G), (4S) and (4REL), and plausibly even (4JTB), stand and fall together.

Let me take stock. What is it, I have asked, about the "because"-clauses we find in virtue-epistemological accounts of knowledge that ensures the accounts' success? I have argued that once we enhance non-aretaic accounts of knowledge such as classic reliabilism or the JTB-account by adding suitable non-aretaic "because"-clauses, we reap essentially the same benefits Greco and Sosa reap. More specifically, I have argued that (i) REL+ (and probably even JTB+) neatly emulates the success of (S) and (G) with respect to the cases discussed, that (ii) the enhanced accounts can do so because their advocates can rely on essentially the same arguments employed by Sosa and Greco to defend their claim to success, and that (iii) this is true because specific aretaic aspects play no role in the respective reasonings, which (iv) basically ensures that the "because"-clauses (4G), (4S) and (4REL) (and probably even 4JTB) hold and fail together. I conclude that answer (B) proposed above is right: It is the general form of the "because"clauses that does the work in (G) and (S), rather than some the specific aretaic aspect such as the intellectual ability invoked in the explanans. The aretaic specifics of (4G) and (4S) are incidental to these accounts' capacity to solve "perennial problems that any theory of knowledge must say something about" (Greco 2010, 71). Put bluntly, virtues have (almost) nothing to do with why virtue-theoretic accounts are, at least in one essential dimension, arguably successful theories of knowledge.

Virtue-theorists advertise their accounts as "virtue-theoretic" theories of knowledge, yet these accounts' success as theories of knowledge is to a large extent rooted in something *non*-aretaic. I call this the *virtue predica-ment*. This predicament should be embarrassing to our virtue-theorist. I can envisage two ways a virtue-theorist can go about solving it. She could respond thus: "I don't care for what you deem embarrassing. Nothing that has

been said undercuts my claim that the aretaic account is the *right* theory of knowledge. But that is all that really counts." In §6, I will explain why this reply in all likelihood leads into a methodological fallacy. Alternatively, she could reply thus: "That's all beside the point. It is an accidental feature of my aretaic account that it comprises a "because"-clause. I can trade that clause for a non-explanatory requirement that is patently aretaic anytime." I agree that if the "because"-clause can easily be dispensed with, all embarrassment vanishes. In the next section, I discuss whether Greco can trade his "because"-clause for a surrogate-clause without jettisoning the apparent success of his account. In §5, I consider the prospects for Sosa's doing so.

4. Can Greco Drop the "because"-Clause?

Someone *S* has knowledge, Greco explains, just in case "*S* believes the truth because *S* believes from intellectual ability" (Greco 2010, 10). However, Greco can also be found stating that "knowledge is true belief that is *grounded in* intellectual virtue" (Greco 2003, 362). This provides a first idea as to how he could drop the explanatory requirement. He could trade his "because"-clause for a *grounding-clause* such as:

(4GRD) The fact that S is having a true belief (rather than a false one) is *grounded in* the fact that S's belief is produced by intellectual ability.

Greco explains his talk of "grounding" thus: "Specifically, a true belief is grounded in intellectual virtue (in the appropriate sense of "grounded in") only if *S* has a true belief *because S* believes out of intellectual virtue" (Greco 2003, 262f). More strongly still, Greco even introduces his explanatory requirement as a precisification of his talk of "grounding":

According to the account I have been defending, knowledge is true belief grounded in the cognitive abilities (or virtues) of the believer. More exactly: in cases of knowledge, S believes the truth *because* S believes from ability. (Greco 2010, 140)

On Greco's use of "grounding", then, claiming *that A is grounded in B* and claiming *that A because of B* amounts to very much the same thing. On the one hand, that is good. It ensures that if Greco trades his "because"-clause for a grounding-clause, the account's capability to deal with problems for everyone is kept intact. After all, (4G) and (4GRD) hold in precisely the

same cases. On the other hand, that is bad. The envisaged trade merely affects the wording, not the content of Greco's account. Since Greco simply has not gotten rid of the explanatory requirement, he cannot solve the virtue predicament this way. Virtues *still* have (almost) nothing to do with why virtue-theoretic accounts are, at least in one essential dimension, arguably successful theories of knowledge, or so we have to conclude.¹²

Greco also assures us that "to say that someone knows is to say that his believing the truth can be *credited to* him" (Greco 2003b, 111). This yields a second idea as to how Greco could forgo the explanatory requirement. He could replace his "because"-clause by a *credit-clause* such as:

(4CRE) The fact that S is having a true belief (rather than a false one) can be credited to S.

How does this credit-clause relate to Greco's "because"-clause? Greco explains their relation thus:

[I]n cases of knowledge S deserves credit for believing the truth. This is because, necessarily, a special sort of credit accrues to success from ability. And on the present account, knowledge is an instance of success from ability. In cases of knowledge, then, S deserves credit for believing the truth, since S's believing the truth is the result of intellectual virtue or ability. (Greco 2010, 140)

Here we need to tread carefully. We cannot read Greco as claiming:

• Necessarily¹³: *S*'s intellectual abilities figure in the etiology of *S*'s true belief that $p \rightarrow S$ deserve credit for truly believing the truth.

On the one hand, Greco admits that causal history cannot suffice for credit. Recall Keith. His intellectual virtues figure in the etiology of his belief that someone in his class owns a Ford. But we all agree that Keith does *not* have knowledge. Unless Greco is prepared to admit that recasting his account in terms of 'credit' renders it fallacious, he needs to strengthen the antecedent of (C) along by now familiar lines: *If S* believes the truth (with respect to *p*) because *S*'s belief is produced by intellectual ability, *then S* deserves credit for believing the truth. On the other hand, explanatory dependence had better also be a necessary condition for credit. For if there are cases where (4G) fails yet (4CRE) holds, we for sure can devise counterexamples to Greco's

¹² Given that Greco is concerned with a causal (and hence metaphysically contingent) relation, the recently popular concept of grounding, which marks a non-causal yet explanatory relation, is of no help here. See e.g. Fine (forthc.).

¹³ In all likelihood, the necessity involved will be conceptual or metaphysical.

theory of knowledge comprising the latter clause instead of the former. We thus need to read Greco as holding:

• Necessarily: *S* believes the truth (with respect to *p*) because *S*'s belief is produced by intellectual ability ↔ *S* deserves credit for believing the truth.

This necessary tie guarantees that (4G) and (4CRE) hold in precisely the same cases. Trading his "because"-clause for a credit-clause thus should not affect Greco's account's capability to deal with problems for everyone.

Suppose, then, Greco dropped (4G) for (4CRE). I grant that this would change more than the mere wording of Greco's account. Yet contrary to what we have been promised, we still have not gotten rid of the explanatory requirement. Greco acknowledges that the dependence between (4G) and (4CRE) is asymmetric: If S deserves credit for truly believing that p, this is *because* her belief that p is elucidatory. The converse does not hold true – S's belief that p is not elucidatory because S deserves credit for truly believing that p. S's deserving credit thus is no *independent* or *additional* mark of his epistemic state; it is but a metaphysical or even conceptual consequence of her belief that p being elucidatory. What is doing all the work still is the explanatory requirement laid down in the "because"-clause. In fact, we do not even know how to *decide* on whether S deserves credit for believing that p other than by checking whether S's belief that p is elucidatory. I conclude that Greco cannot solve the virtue predicament this way either. Virtues still have (almost) nothing to do with why virtue-theoretic accounts are, at least in one essential dimension, arguably successful theories of knowledge.

Both ideas as to how Greco could drop his "because"-clause fail. In hindsight, this should not come as a surprise. Greco ties the project of an aretaic account of knowledge to the explanatory requirement. Having pointed out that epistemic responsibility and reliability in belief-forming are good things, Greco goes on to insist that "(...) it is even better if responsibility and reliability bring success – if one's belief is true *because* it is responsibly and reliably formed. This marks the difference between virtuous belief and belief *from* virtue" (Greco 2010, 44). On this understanding, it is an essential rather than an accidental feature of Greco's aretaic account that it comprises a "because"-clause.

5. Can Sosa Drop the "because"-Clause?

There is no need to speculate how Sosa would go about dropping the "because"-clause. Sosa actually provides an aretaic analysis that apparently makes do without an explanatory requirement:

(VR) A belief amounts to knowledge only if it is true and its correctness derives from its manifesting certain cognitive virtues of the subject, where nothing is a cognitive virtue unless it is a truth-conducive disposition. (Sosa 2009, 135; cf. ibid., 33, 138 and Sosa 2009d, 108,)

In much the same vein, Sosa, replying to Pritchard, explains: "According to this account, *S*'s knowing that *p* in so believing is a matter of *the correctness of his belief manifesting a competence seated in him*" (Sosa (2009e, 433; my italics). The general idea is clear enough: Sosa has eschewed the explanatory term "because" in favour of the dispositional term "manifests". He has done so rather thoroughly. Whereas Sosa initially explained a belief's aptness as "its being true *because* competent" (Sosa 2007, 23), he now insists that an apt performance is such that "its success (...) *manifest* the performer's relevant competence" (Sosa 2009d, 108). According to Sosa, then, *S*'s having knowledge requires that the fact that *S* is having a true belief manifests some epistemic virtue seated in *S*.

If this is to be a change in content rather than mere wording, we need to read the "manifest" here in a purely causal-dispositional (rather than explanatory) manner. Read causal-dispositionally, to claim that the fact that A *manifests* some disposition seated in *S* just is to claim that the fact that A *is a causal effect of* – a *manifestation of* – some disposition seated in *S*.¹⁴ So we find that Sosa has apparently dropped (4S) for this clause:

(4DIS) The fact that *S* has a true belief is a causal effect of some epistemic virtue(s) seated in *S*.

I have some worries about the tenability of (4DIS). To clearly make sense, I feel that it needs a contrastive reading 'has a true belief *rather than a different and false one*', yet given that it is designed to be a *non*-explanatory clause, such a reading is unavailable. That said, I will for the sake of the argument grant that Sosa has successfully traded his "because"-clause for a

¹⁴ We could be even more explicit here. Suppose that A is a causal effect of some disposition seated in *S*; say, *S*'s disposition to ϕ . What precisely is the cause of A? It can hardly be *S*'s disposition to ϕ . It has to be *S*'s exercising his disposition to ϕ – i.e. *S*'s ϕ -ing. – See Johnston 1992 for a sensible approach to dispositions.

non-explanatory requirement. He thus has escaped the virtue predicament. What we need to ask is this: Has Sosa's move from the explanatory to the dispositional kept his theory's capability of solving problems for everyone intact? This is very doubtful indeed.

Recall that Sosa's account already comprises a dispositional clause, *viz*. the epistemic clause (3) of (S). Spelling out the "manifest" as I just did, this clause is to be read thus:

(3DIS) The fact that *S* has the belief that *p* is a causal effect of some epistemic virtue(s) seated in *S*.

Now recall the Nogot/Havit-case. Given his move from the explanatory to the dispositional, Sosa can no longer argue that Keith fails to know since "the reasoning by way of Nogot (...) does not in the slightest help explain its correctness" (Sosa 2007, 96; my italics). Sosa needs a diagnosis in terms of dispositions. But some epistemic virtues seated in Keith have patently played a causal part in his acquisition of the belief that someone in his class owns a Ford. Keith thus satisfies (3DIS). But don't we have to admit that the very same epistemic virtues seated in Keith have also played a causal part in bringing it about that Keith has a *true* belief? After all, they have played a causal part in bringing it about that Keith believes that someone in his class owns a Ford, and this is a true belief. But if that is so, then Keith is bound to also satisfy (4DIS). Sosa's new account hence erroneously classes Keith as a knower. It thus fails to share the success of the original aretaic analysis (S). That is easily explained. In classic bad luck/good luck Gettier cases, the third and fourth clause of the aretaic account need to come apart. Yet by dropping the explanatory clause (4S) for the dispositional clause (4DIS), Sosa has assimilated clauses (3DIS) and (4DIS) in a way that makes it very doubtful indeed that they do come apart.

Worse still, it is hard to see how these two dispositional clauses *could* come apart. (3DIS) requires that our subject has the disposition to form a belief that p if circumstances are a certain way – say, if things look as though p. (4DIS) requires that our subject has the disposition to form true beliefs (rather than false ones). Yet one cannot be *just* disposed to believe the truth. This cannot be a fundamental disposition. For many beliefs, that the belief has the property of *being true* is *not* something that can be determined directly by sensory or introspective discrimination, given the epistemic situations we are in. But dispositions are causal mechanisms and a causal mechanism can only be sensitive to properties that are determinable

by direct sensory or introspective discrimination, given the situations we are in. We find, then, that *things being such that my belief is true* is not a suitable candidate for a manifestation condition of a fundamental disposition. Hence, S's disposition to believe the truth has to be dependent upon some other of S's dispositions: S is disposed to have true (rather than false) beliefs in virtue of being disposed to have beliefs that are F, where F is a property open to sensory discrimination, given the epistemic situation we are in.

Consider a parallel case. The property of *having been painted by Vermeer* is a historical property. We cannot, as it were, directly establish that some painting has this property by looking at the picture. Now consider Marty. Marty is a successful art collector. Relying solely on visual inspection, he has exclusively bought genuine Vermeers rather than forged ones. In a sense, then, Marty is disposed to succeed, i.e. to buy genuine Vermeers. Can Marty *just* be disposed to buy genuine Vermeers? Can this be a fundamental disposition of his? No, it cannot. Dispositions are causal mechanisms and a causal mechanism cannot be sensitive to properties such as *having been painted by Vermeer* not determinable by sensory discrimination. Hence, Marty's disposition to buy genuine Vermeers must be dependent upon some other disposition of his. Maybe he is disposed to buy paintings with a specific brush stroke pattern, and this pattern happens to be Vermeer's.

Marty's disposition cannot come apart. If Marty exercises his disposition to buy paintings with a specific brush stroke pattern and hits on a Vermeer, he has *ipso facto* exercised his dependent disposition to buy genuine Vermeers. The same holds true of our epistemic subject. If *S* exercises her disposition to have beliefs that are *F* and hits on a true belief, she has *ipso facto* exercised her dependent disposition to have true beliefs. But if that is so, someone satisfying (3DIS) who ends up holding a true belief *thereby* satisfies (4DIS).

Let me take stock. The changes we envisaged for Greco's account arguably would not affect the theory's capability to deal with the famed problems for everyone. Yet we found that Greco had failed to drop the "because"-clause, and that the explanatory requirement was still doing all the work. By contrast, Sosa's overhauled account does successfully get rid of the explanatory requirement. But it is doubtful that this new aretaic theory can still deal with classic Gettier cases, or account for the difference between garbage-chute and lottery cases, for that matter. I conclude that it is not an accidental feature of the aretaic theories we have been considering that they comprise

"because"-clauses tying knowledge to specific explanatory requirements. Very much the same is, I suspect, true for of *any* aretaic account matching (G)'s capacity to solve problems for everyone. Virtue-theorists cannot evade the virtue predicament by dropping the "because"-clause.

6. A Methodological Fallacy, or: History Repeating?

Since dropping the "because"-clause is not an option, virtue-theories cannot evade the virtue predicament. You might think that is fine. Recall the charge: I have complained that virtue-theorists advertise their accounts as "virtue-theoretic" theories of knowledge even though these accounts' success as theories of knowledge is, at least in one essential dimension, patently rooted in something *non*-aretaic. One might deem this to be somewhat embarrassing. However, nothing that I have argued so far undercuts the claim that the aretaic account is the *right* theory of knowledge which, in the end, is all that counts in epistemology. So why can't our virtue-theorists simply stick to their "because"-clauses? Because doing so might well mean to commit a serious methodological fallacy. To see this, we need to turn our clocks back 40-odd years.

Back in the 60s, Peter Unger urged us to add a *no-accident-condition* to our traditional analysis of knowledge as justified true belief:

For any sentential value of p, a man's belief that p is an instance of knowledge only if it is not an accident that the man's belief is true. (Unger 1967, 172; cf. Unger 1968)

The resulting theory of knowledge easily accounts for the whole variety of Gettier cases. Still, hardly anyone was willing to take up Unger's advice. But why? What's wrong with Unger's theory of knowledge? Goldman's (1976, 773) complaint that "the notion of 'non-accidentality' itself needs explication" provides a partial explanation at best. The real reason, I suspect, is that there seems something *structurally* amiss with Unger's proposal. What is a theory of knowledge supposed to accomplish? One popular answer to this question is this: A theory of knowledge is first of all supposed to mark off knowledge from mere accidental true belief.¹⁵ (These days, one commonly hastens to add that, as Gettier has shown, this is far harder to accomplish that traditionally thought.) Within a traditional tripartite theory of

¹⁵ Constraints such as this are almost never pre-given. We rather have to get clear about them as we pursue our philosophical endeavours.

knowledge, this job falls to the third or justification-condition. This condition is expected to mark the difference between true belief and knowledge by excluding accidentally true beliefs. Simply incorporating a no-accidentcondition *in* our theory of knowledge thus amounts to satisfying the core constraint *on* such theories *by mere say-so* – by writing into the theory the demand that a specific job be done, rather that by adjusting our theory in a way that it actually *does* it. I at least cannot shake the feeling that this is unacceptable.

In this light, let us consider theories of knowledge adding a "because"clause to the more traditional alethic, doxastic and epistemic conditions (§1–3). These theories tie knowledge to an explanatory requirement. They require that the fact rendering true the epistemic condition should explain why the subject is having a true (rather than a false) belief. For example, the enhanced JTB-theory demands that the fact that S's belief is justified should explain why S is having a true belief (rather than a false one), and Greco's account compels the fact that S's belief is produced by intellectual ability to accomplish the very same explanatory feat. Here is a worry: Is history repeating itself? Are theories of knowledge comprising "because"-clauses structurally amiss for the very same reason Unger's theory was? That is to say, do they, too, mistake the core constraint on theories of knowledge for a suitable ingredient in such a theory? One might well think so. Consider reliabilism. Reliabilists think that true beliefs constitute knowledge only if they have a particular history. The third condition of reliabilist' accounts such as e.g. REL above is expected to mark the difference between true belief and knowledge by excluding ways that accidentally lead to true (rather than false) beliefs – in other words, by excluding ways of generating beliefs that are incapable of explaining why the beliefs we arrive at are true (rather *than false*). So by adding a "because"-clause, we again write into our theory a demand that a specific job be done, rather that by adjusting the theory in a way that it actually does it. Again, I cannot shake the feeling that this is unacceptable.

For the reasons just given, I am somewhat inclined to conclude that any theory of knowledge comprising a "because"-clause of the variety paraded commits a rather serious methodological fallacy. If that is right, virtue-theoretic theories of knowledge such as (G) and (S) are in deep trouble. The very explanatory requirement that allows them to smoothly solve "perennial problems that any theory of knowledge must say something about" (Greco 2010, 71) renders them in methodologically deficient. I reckon that this can-

not be rectified unless the virtue-theorists are willing to straightaway purge the "because"-clauses from their accounts. But if they do so, their accounts will in all likelihood straightforwardly founder on problems for everyone such as the classic bad luck/good luck Gettier cases.

Suppose, however, that I am mistaken. Suppose that there is nothing wrong with theories of knowledge that comprise "because"-clauses such as (4G), (4S), or (4REL), or (4JTB), for that matter. Then our virtue-epistemologist again finds herself in a tight spot. If "because"-clauses are acceptable ingredients in theories of knowledge, all accounts we can devise by enhancing non-aretaic theories are *prima facie* legitimate. But many of those will solve the famed problems for everyone just as smoothly as our aretaic theories; just think of enhanced reliabilism, or the enhanced JTB-theory. And like those two, many of enhanced accounts will be substantially simpler than the virtue-theories under scrutiny.¹⁶

Literature

- Baehr, Jason 2011, *The Inquiring Mind, On Intellectual Virtues and Virtue Epistemology*, Oxford, Oxford University Press.
- Cohen, Stewart 2009, "Knowledge as Aptness", *Philosophical Studies* 144: 121–125.
- DePaul, M. and Zagzebski, L. (eds.), 2003, *Intellectual Virtue: Perspectives* from Ethics and Epistemology, Oxford: Oxford University Press.
- DeRose, Keith 2009, The Case for Contextualism, Knowledge, Skepticism and Context, Vol. 1, Oxford, Oxford University Press
- Fine, Kit (forthc), "A Guide to Ground", in Correira, Fabrice/Schnieder, Benjamin, *Grounding and Explanation*, Cambridge: Cambridge University Press.
- Ginet, Carl 1980, "The Fourth Condition", in *Philosophical Analysis. A Defense by Example*, David F. Austin (ed.) 1988, Amsterdam, Kluwer, 105–117.
- Goldman, Alvin 1976, "Discrimination and Perceptual Knowledge", *Journal of Philosophy* 73: 771–799.
- Goldman, Alvin and Erik J. Olson, "Reliabilism and the Value of Knowledge", in Haddock/Millar/ Pritchard 2009, 19–41

¹⁶ I am indebted to Tim Henning and Peter Schulte for their extensive commentary on earlier drafts of this paper. Needless to say, the remaining faults are all mine. I would also like to thank the participants of the 2010 Jena-conference on virtue epistemology where I first presented the material for many valuable critical remarks.

- Greco, John 2003, "Knowledge as Credit for True Belief", in: *Intellectual Virtue, Perspectives from Ethics and Epistemology*, Michael DePaul and Linda Zagzebski (eds.), Oxford: Oxford University Press.
- Greco, John 2007, "The Nature of Ability and the Purpose of Knowledge", *Philosophical Issues* 17: 57–69.
- Greco, John 2009, "Knowledge and Success From Ability", *Philosophical Studies* 142: 17–26.
- Greco, John 2010, Achieving Knowledge, Cambridge: Cambridge University Press.
- Greco, John/Turri, John 2011, "Virtue Epistemology", in *The Stanford Encyclopedia of Philosophy* (http://plato.stanford.edu).
- Haddock, Adrian/Millar, Alan/Pritchard, Duncan (eds.) 2009, *Epistemic Value*, Oxford: Oxford University Press.
- Johnston, Mark 1992, "How to Speak of the Colors", *Philosophical Studies* 68: 221–263.
- Kelp, Christoph 2009, "Pritchard on Virtue Epistemology," *International Journal of Philosophical Studies* 17: 583–587.
- Kornblith, Hilary 2009, "Sosa in Perspective", *Philosophical Studies* 144: 127–136.
- Lehrer, Keith/Paxton, Thomas 1969, "Knowledge: Undefeated Justified True Belief", *The Journal of Philosophy* 66: 225-237.
- Lewis, David 1986, "Causal Explanation", in: David Lewis, *Philosophical Papers*, Volume II, Oxford, Oxford University Press, 214–240.
- Lewis, David 1996, "Elusive Knowledge", Australasian Journal of Philosophy 74: 549–567
- Lipton, Peter 2004, *Inference to the Best Explanation*, (2nd ed.), London: Routledge.
- Sosa, Ernest 2000, "Skepticism and Contextualism", *Philosophical Issues* 10: 1–18.
- Sosa, Ernest 2007, A Virtue Epistemology. Apt Belief and Reflective Knowledge, Volume I, Oxford: Oxford University Press.
- Sosa, Ernest 2009, *Reflective Knowledge*. Apt Belief and Reflective Knowledge, Volume II, Oxford: Oxford University Press.
- Sosa, Ernest 2009b, "Précis A Virtue Epistemology (Oxford University Press, 2007)", *Philosophical Studies* 143: 395.
- Sosa, Ernest 2009c, "Replies to Brown, Pritchard and Conee", *Philosophi*cal Studies 143: 427–440
- Sosa, Ernest 2009d, "Précis A Virtue Epistemology (Oxford University Press, 2007)", *Philosophical Studies* 144: 107–109
- Sosa, Ernest 2009e, "Replies to commentators on A Virtue Epistemology (Oxford University Press, 2007)", Philosophical Studies 144: 137– 144

- Unger, Peter 1967, "Experience and Factual Knowledge", *The Journal of Philosophy* 64: 152–173.
- Unger, Peter 1968, "An Analysis of Factual Knowledge", *The Journal of Philosophy* 65: 157–170.